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Performance Results of Quartz Detector for the SuperHMS Spectrometer at Hall_C Jefferson Lab¹ BENJAMIN F. GRIEGO JR., ABDELLAH AHMIDOUCH, SAMUEL DANAGOULIAN, DEMETRIA CAMPBELL, SHARON SPRATT, North Carolina A&T State University, CHARLES PERDRISAT, College of William and Mary, HOWARD FENKER, Jefferson Lab — A quartz hodoscope has been constructed for the trigger system of the super High Momentum Spectrometer (SHMS). The latter will play a central in carrying out the 12-GeV physics program at Hall-C Jefferson Lab. The quartz hodoscope consists of twenty one fused silica bars. Each bar is 125 cm long, 5.5-cm wide, 2.5 cm thick, and is viewed by a UV-sensitive PMT on each end. The quartz hodoscope task is to provide a clean detection of charged particles, provide a high level of background suppression, and provide accurate tracking efficiency determination. Test results of the quartz detectors which include light yield, position resolution, and efficiency measurements will be presented.

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